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INTELLIGENCE MEMORANDUM

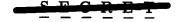
SOVIET PLAN FULFILLMENT 1954

CIA/RR IM-411
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CIA/RR IM-411 (ORR Project 14.436)

SOVIET PLAN FULFILLMENT*

Summary and Conclusions

The implications of Soviet plan fulfillment in 1954 should be assessed from two points of view: that of the Soviet leaders and that of the great mass of Soviet citizens. Soviet leaders are concerned with furthering the development of a modern industrial economy, with maintaining and improving the position of the Soviet Bloc with respect to the West, and with creating the conditions considered necessary for the eventual transition to Communism. Soviet citizens in the mass are more interested in their own immediate welfare, although the extent of their willingness to produce is a limiting factor on the decisions of the leadership.

For the Soviet leadership, the 1954 plan results are a mixture of gratifying successes and persistent failures. The increase in total industrial output was sufficient to permit a slight overfulfilment of the ambitious goals of the Fifth Five Year Plan (1951-55), if only a modest rate of growth is achieved in 1955. By the end of this year the Soviet index of industrial production will show an increase of 80 percent over 1950. Output of coal, petroleum, steel, and electrical energy is rapidly approaching the levels which Stalin designated in his 1946 election speech as the material basis for Communism. Even in 1954, the first full year of the "new course," output of producer goods rose more rapidly than output of consumer goods.

A number of the top-priority industries, however, will barely make the 5-year targets and then only by straining capacity to the utmost, without the slack that has usually been available at the end of a plan period. The investment plan for the 1951-55 period probably was assured of success by the achievements of 1954, but because of inefficient construction, the cost of the program appears to be considerably higher than had been anticipated. High costs, low labor

^{*} The estimates and conclusions contained in this memorandum represent the best judgment of ORR as of 1 May 1955.

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productivity, and inefficient organization in the construction industry are some of the most serious chronic problems in the Soviet economy. Cost reductions in industry were slightly behind the plan on the whole, and there may have been cost increases in the extractive industries, where the immediate benefits of cost reductions are the greatest. The volume of rail transport planned for 1955 was exceeded in 1954, but this overfulfillment resulted from longer-than-planned length of haul for fuel, timber, and other basic materials rather than from the early completion of over-all production plans. The economy as a whole reflected the stresses and strains of the superimposition of the "great projects"; logistical support of the Korean War; the general uncertainty, relaxation, and reassessment which followed Stalin's death; and, finally, the consumer goods program.

The principal problems facing the Soviet leadership at the end of 1954 were lagging labor productivity and agricultural production. By the middle of 1954 it was apparent that the Fifth Five Year Plan goal for labor productivity could not possibly be fulfilled. Achievement of production and investment targets is being purchased at the price of above-plan increments to the industrial labor force. The effectiveness of this expedient has been sharply reduced as the Soviet leadership returned large numbers of skilled workers to agriculture, thus reversing the trend of the past 25 years. The wage fund has been overexpended, thereby exerting pressure on the limited supply of consumer goods. Various forms of propaganda and prestige rewards are losing their effectiveness and must be augmented by more material incentives. The deficiencies in agricultural production are primarily deficiencies of those food products which would improve the diet and provide incentives to both the urban and rural workers -- livestock products and fats and oils. Failure to achieve the desired rates of growth in labor productivity and in agricultural production retards the growth of total output, thus constricting the investment surplus and lowering the rate of growth of the economy as a whole.

The Soviet citizen also must view the 1954 achievement with mixed feelings. It undoubtedly was the best year for the Soviet consumer since 1937 or 1938 and possibly the best year since the onset of collectivization and industrialization. Retail prices again were reduced but by a much smaller percentage than in 1953, and the volume of trade turnover increased 18 percent instead of 15 percent as planned. The output of manufactured consumer goods exceeded the original Fifth Five Year Plan goals, and some improvement was made in the quality and variety of consumer goods. In 1954, unlike 1953, most of the

increase in trade turnover resulted from increases in production rather than from inventory clearances, repricing, releases from stockpiles, and the channeling of a greater portion of total goods into the state trade network. Only 1 or 2 percent of Soviet households, however, could afford many of the luxury consumer goods produced, such as refrigerators, washing machines, automobiles, and television sets, and only shock workers could afford the radios and motorcycles produced. The increased production of textiles, pots and pans, footwear, and furniture, to be sure, benefited the broad masses of the population, but many of these items were relatively expensive, and their quality remained, on the whole; poor. Much excess purchasing power still remained at the end of the year, however, as a result of the rapid growth in the labor force, the reduced state loan, and the increased procurement and purchase prices paid for farm commodities. Queues were still chronic, and long. While few households could afford the luxury goods, many were willing and able to purchase larger quantities of less expensive goods which were in short supply. This was particularly true of quality foodstuffs (meat and dairy products and vegetables) and housing. Housing is quite cheap in the USSR, but it is of very poor quality and is extremely crowded. 25X1A9a

Popular moralé probably improved considerably in 1954, but the improvement resulted as much from the general relaxation of tension as from the improvement in the material well-being of the Soviet masses. The ordinary Soviet citizen at the end of the year may have felt some pride in and may have derived some satisfaction from the continuation of industrial growth, but his more immediate personal desires were far from satisfied. Much of the effect of the consumer goods program probably was negated by the continued shortages of housing and of quality foodstuffs. These are the products which most Soviet consumers would like to purchase in increased volume, and these are the products for which the gap between output and plan was greatest.

In the final analysis, of course, the decisions are made by the leadership; most citizens can do little more than hasten the program or drag their feet. The Soviet leaders at the end of 1954 had considerable cause for satisfaction in the rapid industrial growth of the country, the improvement in its military posture, and the initial success of the "new lands" program. The problems which they faced, however, were serious, persistent, and deeply rooted in the institutional structure of the regime. Awareness of the problems was indicated

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by the public attention devoted to housing construction, the long-range growth of animal husbandry, and the relatively low rates of growth of industrial production and investment planned for 1955. The latter apparently reflected the increased defense expenditures and the desire of the Soviet leaders to consolidate their economic position and to provide a firm and flexible base as the point of departure for the Sixth Five Year Plan.

I. Introduction.

The results of Soviet plan fulfillment in 1954 are particularly interesting for several reasons. First, 1954 was the first full year of economic activity after the death of Stalin, who had dictated the pattern of economic growth in the USSR as well as its political development for so many years. Second, 1954 was the first complete year of the "new course," since 1953 was occupied largely with making the adjustments necessary to implement the new emphasis on the production of consumer goods. Events such as these are to the Soviet economy what changes in secular trends are to a market economy. Third, as the fourth year of the Fifth Five Year Plan (1951-55), following a year of unusually low rates of growth, 1954 produced results which, in large measure, were to determine the successes and failures of the Fifth Five Year Plan as a whole.

The principal objectives of this memorandum are to relate actual achievements to planned goals, to indicate areas of activity where difficulties are either being encountered or anticipated, and to point out the general causes of the difficulties. Economic policies are not the primary focus of this memorandum, but they will be introduced throughout as the necessary framework for understanding current activities. Brief comparisons with developments in the Fourth Five Year Plan (1946-50) will be introduced in order to provide necessary perspective.

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II. Industry.

A. General Trends in Production.

In 1954, having made the necessary adjustments to the shifts in the order of priority which were announced after Stalin's death in 1953, the Soviet economy resumed a rapid rate of growth which virtually insured the fulfillment not only of the original Fifth Five Year Plan goals for total industrial output but also of the original and revised goals for the production of consumer and producer goods. Total industrial output increased 13 percent in 1954, and the 9-percent increase planned in 1955 will raise the cumulative index to 180 (1950 = 100) (see Table 1*). The output of producer goods rose 13 percent in 1954, the first full year of the "new course," compared with 12 percent in 1953, the year of transition. The estimated planned increase of 10 percent in 1955 will bring the cumulative index for producer goods to 184, compared with the originally planned 180. Production of consumer goods increased 12 percent in 1954, in accordance with the "new course," despite the lag of agricultural production. The estimated 6-percent planned increase in 1955 will raise the cumulative index to 171 rather than to 160, as originally planned. It must be remembered, however, that the base is much smaller for consumer goods than for producer goods, the former accounting for no more than 30 percent of total industrial production in any given year.

The Fifth Five Year Plan was somewhat more ambitious than the Fourth Five Year Plan and did not have the benefit of quick return from reconstruction and reconversion. It is still worthy of note, however, that in the Fourth Five Year Plan the planned growth of industrial production (1950 over 1940) was exceeded substantially -- the actual increase of 73 percent reported contrasts with the 48-percent increase planned. On the other hand, production of consumer goods fell far short of the Fourth Five Year Plan goals, whereas in the current plan even the revised goals (excepting quality foodstuffs) will be reached in most instances.

^{*} Table 1 follows on p. 6.

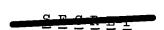


Table 1

Increases in Industrial Output and National Income in the USSR a/ 1951-55

							Percent
	Increase over Previous				s Year	Planned I 1955 ove	
	1951	1952	1953	1954	1955	Original	Revised
National income	12	11	8	11	10 19/	60	64 c/
Total industrial output d/ Producer goods d/ Consumer goods d/	16 17 16	11 (12) 11	12 (12) 13	13 (13) (1 2)	9 (11) b/ (6) b/	74 80 60	80 84 71

a. Data for 1951-54 and the original cumulative goals are from yearly plan fulfillment reports and from the Fifth Five Year Plan directives, respectively. The one figure given for 1955 and the revised cumulative goals are from Bulganin's speech to the Supreme Soviet in February. 1/* Although the weighting system employed is unknown, Soviet statistics on gross industrial production and national income provide a rough measure of the direction and magnitude of change. Moreover, these statistics are useful because they represent one of the principal yardsticks by which economic growth is planned and measured in the USSR.

b. Parentheses indicate interpolations.

c. 2/ Computed from actual increases for 1951-54 and the 1955 Plan.

d. A few words on some of the problems encountered in using the indus-

trial output statistics are in order:

First, yearly increases apparently have been rounded down in plan fulfillment reports, inasmuch as both Bulganin and one Soviet press report 3/ indicate that the cumulative index of gross production stood at 165 at the end of 1954. The producer goods series also falls slightly short if the interpolated rates for 1955 are kept consistent with a 9percent increase in gross production, indicating that the subtotals also have been rounded downward. Actually, an increase of about 11 percent in producer goods is required to reach the cumulative goal of 184, on the basis of the announced annual increases

^{*} For serially numbered source references, see Appendix B.

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Table 1

Increases in Industrial Output and National Income in the USSR 1951-55 (Continued)

(footnote d continued)

Second, there are some problems of consistency between the original plan for total production and the planned rates of increase in the subtotals, as stated in the 1952 Plan directives. The original Fifth Five Year Plan directives specified a 70-percent increase in total industrial output and an average annual rate of 12 percent. Producer goods output was scheduled to grow at 13 percent a year, and consumer goods output at 11 percent. The over-all 5-year goal was not consistent with the average annual increase, which implies a 76-percent increase for the period. If the official ratio of capital to consumer goods production of 7:3 is applied, the 12-percent total rate is too low.

A partial exit from this dilemma is provided by Malenkov's allusion to 60 percent as the original increase planned for consumer goods. This is equivalent to an annual rate of 9.9 percent. Even if it is assumed that the 70-percent 5-year increase for total output has some validity, it must be recognized that it is less than a 12-percent annual rate of increase because the consumer goods yearly increase has been rounded upward by over 1 percent. Assuming a rounding upward of the producer goods goal by half as much, 0.5 percent, the 5-year increase in this category would amount to 80 percent. Applying the 7:3 ratio to the computed consumer and capital goods increases yields a total industrial output increment of 74 percent.

B. Producer Goods Industries.

1. Basic Material and Service Inputs.

Judging from the results achieved in 1954, a number of the top-priority industries, the so-called "leading links" -- coal, petroleum, metallurgy, and electric power -- barely will reach, and in some cases may even fall short of, the 1955 production goals

Percent

(see Table 2). Throughout the postwar period these industries have received a proportionately larger share of available resources than

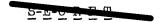
Table 2

Increases in the Production of Selected Basic Industrial Materials in the USSR
1951-55

						Lercento
Industrial Material	Increa	se over 1952	Previous	Year 1954	Planned Increase 1955 over 1950	Increase Required in 1955
Pig iron Crude steel Rolled steel Zinc Lead Copper Coal Crude petroleum Electric power Caustic soda Calcined soda Mineral fertilizers Synthetic rubber Cement Bricks Slate Paper	14 15 15 15 25 14 8 12 14 8 9 7 20 20 27 12	14 10 12 24 17 15 7 12 13 11 21 8 9 15 19 26 9	9 10 10 13 22 N.A. 6 12 13 15 19 9 13 15 12 22 10	9 8 9 7 13 5 8 12 11 10 16 1 19 13 17 10	76 62 64 150 170 43 85 80 79 84 88 82 120 130 160 46	14 8 6 45 34 8 17 11 17 6 28 22 17 27 14 a/

a. Overfulfilled in 1954.

in the prewar period. In 1948-49 there occurred a marked shift in investment allocations in favor of these industries, and a further shift was made in the Fifth Five Year Plan. As a result of this emphasis, the production goals of the Fourth Five Year Plan for these industries were substantially exceeded, and the goals for the Fifth Five Year Plan (announced in 1952) required further growth at very rapid rates, despite the already expanded base to which the increases



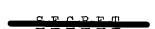
would apply. For example, the Plan called for a 62-percent increase in production of crude steel and an 85-percent increase in production of crude petroleum, which contrast with the comparable increases of about 35 and 10 percent planned, on a much smaller base, for the 1940-50 period.

The original 1955 petroleum goals apparently have been revised downward to a cumulative increase of about 75 percent above the 1950 level by the end of 1955.* Yearly increments have been exactly 12 percent per year (which represented, in 1954, an actual overfulfillment of the yearly plan), whereas an average rate of growth of about 13 percent is required. There is no evidence of planning for the 17-percent increase which would be necessary in 1955 to salvage the original plan. The condition which led to the implied downward revision of the crude petroleum production plan is not known definitely, but refining capacity** seems to pose a greater limitation than the availability either of extraction equipment or of oil deposits.

The cutback in crude petroleum production plans apparently has brought about an upward revision of the coal production plan such as to maintain the planned level in the fuel balance. Output of coal rose 8 percent in 1954, and a similar rise in 1955 would be sufficient to provide the cumulative planned increase of 43 percent for the 1951-55 period. Investment allocations to the coal industry, however, increased notably last year, and recent reports indicate that a 13-percent increase in output is planned for 1955. 5/ An additional increment to coal output of this magnitude probably will more than compensate, in terms of energy equivalents, for the anticipated shortfall in the production of crude petroleum.

Projection of the 1954 rates of increase in ferrous metallurgy indicates that the Fifth Five Year Plan goals for output of pig iron probably will not be achieved but that the 1955 goal for output of crude steel still may be reached. Output of pig iron increased only 9 percent in 1954; consequently, output in 1955 must rise 14 percent in order to reach the level planned for the end of the 5-year

^{**} Production of oil equipment in general seems to be far behind plan. See III, B, 2, and Table 3, below.



^{*} This statement assumes that there has been no change in the number of petroleum components included for the purpose of calculating percentage increases. These components are crude oil, natural gas liquids, and natural gas. 4/

period. In 1954, output of crude steel increased 8 percent -- less than the rate of growth in 1953 but still sufficient to meet the cumulative planned goal, if maintained through 1955. The problem is whether the USSR can achieve the requisite rate of growth in crude steel if pig iron output continues to lag. Increased inputs of scrap could be substituted for a year or two, but the supply of scrap will not suffice to maintain current rates of growth in steel output beyond 1955 without a marked increase in output of pig iron.

Although the generation of electric power increased less in 1954 than in 1953 -- 11 percent compared with 13 percent -- the 5-year goal will be reached if there is like gain in 1955. Such success, however, apparently will be at the price of using existing equipment to the limit, with little reserve capacity, because of a serious lag in the production of steam turbines and generators. It is estimated that installed electrical generating capacity by the end of 1955 may be as low as 75 percent above 1950 instead of 100 percent, as originally planned.

A projection of 1954 trends in the production of chemicals and nonferrous metals leads to the conclusion that several commodity production objectives of the Fifth Five Year Plan probably are now out of reach. The 1955 production of caustic soda, calcined soda, and synthetic rubber probably will fall far short of the 1951-55 targets. The production of mineral fertilizers rose sharply (16 percent) in 1954, and if the 1955 goal of a 24-percent increase is achieved, 6/ the cumulative growth for the 5-year period will be more than 8C percent. Although this will be less than the original target of 8E percent (1955 over 1950), the result is still impressive and important because of requirements for more mineral fertilizers in agriculture.

The production of aluminum at the end of 1954 exceeded the 1950 level by 140 percent, and the modest growth (9.8 percent) planned for 1955 is slightly higher than needed to meet the ambitious planned increase of 160 percent for the 1951-55 period. 7/ The production of other nonferrous metals, however, is considerably behind the original plan. The production of copper is lagging far behind plan, and copper is believed to be generally in short supply. Although the production of lead doubled by the end of 1954 (over 1950), and output of minc was more than 70 percent above the 1950 levels, the original 1951-55 plan for these metals has been abandoned. The increases planned for 1955 are only 11.7 and 16.5 percent, respectively,

whereas increases of 34 and 45 percent would have been required in order to meet the original Fifth Five Year Plan goals.

2. Engineering Industries.

Plan fulfillment for the engineering industries in 1954 indicates both great achievement and substantial failure (see Table 3*). The whole pattern of development of the engineering industries is considerably different in the Fifth Five Year Plan from what it was in the Fourth, in which almost every major engineering industry had a 1950 goal of from two to four times the 1940 rate and in which much of the increase was to come from new plants in the relatively less industrialized areas of the country. In the Fifth Five Year Plan, many engineering industries had relatively small projected rates of increase -- about 20 percent for the automobile and tractor industry, for example. Indeed, many industries -the locomotive industry, for example -- were so disrupted by shifts in output mix during the Korean War period that production declined substantially. On the other hand, those engineering industries which provided the capital equipment for the "leading links" and for the "great projects" -- the oil and electrical equipment industries, for example -- were scheduled for great expansion.

The 1954 plan fulfillment indicates that the cumulative 680-percent increase in large hydroturbines already has been achieved but that the goal for steam turbines may not be reached in 1955. The metallurgical equipment industry will achieve only about one-half of the planned 85-percent increase (1955 over 1950), and production at worst may be only about 10 percent above the 1950 level in 1955. The production of equipment for the petroleum industry looks hopelessly behind the 250-percent cumulative increase planned, with the almost certain result that the USSR will be without the 20-percent reserve refinery capacity desired at the end of 1955. Indeed, the cutback in the petroleum production plan may have been dictated by the lack of sufficient refinery capacity.

Production of steam locomotives, which dropped to less than one-third the 1949 level in 1951, when the plants were switched over to capital equipment for the "leading links" and for the "great projects," probably regained the 1949 level in 1954. The USSR has, however, a substantial reserve inventory of older steam locomotives.

^{*} Table 3 follows on p. 12.

Table 3

Increases in the Production of Selected Industrial End Items in the USSR 1951-55

						Percent
	Incres	ase over	Previo	us Year	Planned	Increase
End Item	1951	1952	1953	1954	Incre as e 1955 over 1950	Required in 1955
Steam turbines Large hydroturbines	10 145	5յ ^լ 8	40 35	4 82	130 680	33 a/
Electric locomotives	11	-	34	7	N.A.	2)
Steam locomotives	N.A.	N.A.	163	13	N.A.	
Freight cars	N.A.	N.A.	3	N.A.	N.A.	
Trucks	N.A.	_	11	11	15	
Passenger cars	N.A.	7	30	23	49	
Antifriction bearings	30	17	15	13	N.A.	
Petroleum equipment	N.A.	44	17	N.A.	2 50	
Metallurgical equip- ment		12	18	5	85	80 ъ/
Metal-cutting machine tools		3 c/	14	8	N.A.	
Large heavy and uni- versal tools	11				N.A.	
Chemical equipment	38	28	24	14	230	32
Looms	N.A.	39	2	69	N.A.	
Spinning machines	N.A.	18	N.A.	22 d/	N.A.	٦).
Tractors	N.A.	7	13	22 d/ N.A.	68 <u>c</u> l/ N.A.	14
Grain combines Sugar beet combines	15 N.A.	N.A. 19	2 50	140	N.A.	
Dagar peed compartes	M .A.	ربد	70	- ' 7	41 441 4	

a. Overfulfilled in 1954, when the cumulative index for the 1951-54 period reached 746.

b. It is estimated that output of metallurgical equipment dropped sharply in 1951 and that the index at the end of 1954 (1950 = 100) was approximately 103.

c. Ministry of Machine Tool Industry only.

d. The original goal of a 19-percent increase is believed to be in terms of horsepower, which is estimated to be equivalent to about a 40-percent increase in terms of physical units. Revised goals under the "new course" provided for about a 68-percent increase (physical units), which probably will be achieved. 8/

and current production consists largely of new, larger, more efficient models. The production of electric locomotives shows some increase, but the production of diesel locomotives appears to be lagging so badly as to go unreported. The production of these types probably is still far short of the volume required for the extensive dieselization and electrification program outlined by Kaganovich in mid-1954. A program comparable to that outlined by Kaganovich apparently was proposed in one of the original versions of the Fifth Five Year Plan but was dropped because of the magnitude of requirements for the great projects, the accelerated expansion of the "leading links," and possibly the requirements for logistical support of the Korean War. In any event, the USSR has yet to expand current production rates of diesel and electric locomotives in order to implement the program outlined by Kaganovich. The production of freight cars was not reported in 1954, and production probably was somewhat below the 1950 level. The production of freight cars, particularly gondola types, probably will have to be substantially increased in the near future.

An 8-percent increase in output of metal-cutting machine tools was reported in 1954, but the general trend in the production of machine tools is difficult to ascertain. Unlike the emphasis in the first four Five Year Plans, the main emphasis on the production of machine tools in the 1951-55 period has been on heavier, more complex tools rather than on rapid expansion of unit output. Soviet reporting in the Fifth Five Year Plan has not been consistent either in terms of categories or in terms of subordination of the producing units. It is probably a safe assumption, however, that the 1951-55 goals will be reached.

The production of row-crop-type tractors almost tripled in 1954 and was very close to the "new course" goals. Output of heavy, general-purpose tractors has been stable for several years and is ample to support the current expansion of the sown area. The 1955 goals for output of tractors should be achieved, or very nearly so, indicating that the defense industries are successfully making a major contribution.

In summary, the results of 1954 indicate that the major basic commodity production goals in the producer goods sector will be approximately fulfilled. More of the items subject to specific annual reporting will fall somewhat short of plan than will exceed it, which is in sharp contrast to the results of the Fourth Five Year Plan. Even with a slight shortfall in the present plan, however, the increase in production is impressive because of the larger



base (1950 for the Fifth Five Year Plan, 1940 for the Fourth) and the virtual exhaustion of unusual sources of growth available during the Fourth Five Year Plan, such as reconversion and reconstruction, looted capital equipment, and the retention of skilled prisoners of war. On the other hand, production capacity will be considerably taxed.

C. Consumer Goods Industries.

1. Production.

In assessing the growth of the production of consumer goods in the USSR it is desirable to distinguish between those items which are processed agricultural raw materials and those goods which are produced from raw materials of industrial origin. This distinction roughly corresponds to the standard categorization of nondurables and durables. The USSR, by shifting distribution priorities and by increasing investment allocations, can increase substantially the output of industrial consumer goods in a relatively short time. The situation is quite different, however, if an increase in the output of agricultural raw materials is a prerequisite.

Historically (from 1928 to the present), the rather limited investment in agriculture has had an almost negligible effect upon agricultural output; greater capital intensity has been largely negated by migration of large segments of the youthful rural labor force, forced collectivization, and other forms of political and economic pressures. The peasant has been bled by state acquisition of most of his collective output at artificially low procurement prices and then bled again by the requirement that what little cash income accrues to the collective be used in large part to augment state investment in agriculture. As a consequence, the dynamic factors affecting the growth of Soviet agricultural production are peasant income -- including availabilities of manufactured consumer goods -- and peasant reaction to political pressures in the villages. Increases in these pressures have produced additional peasant resistance to the state's agricultural program. In addition, agricultural production has certain innate characteristics, particularly dependence upon adequate rainfall and the time required to build up livestock herds, which make it very difficult to secure increments to output merely by shifts in distribution priorities and in investment allocations.

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The production of consumer goods as a whole showed a substantial increase in 1954, in accordance with the "new course" goals, but in many instances it fell short of the plan. The production of automobiles apparently reached the planned 1955 level in 1954. The production of radios is probably somewhat behind schedule, but the reported 76-percent increase means that the rate of increase necessary in 1955 is much less, about 50 percent. The production of bicycles, which was fairly large in past years, increased 25 percent and may reach the planned 1955 level. Television sets were reported as below plan; nevertheless, output increased more than 300 percent. In this case, however, the base is fairly small. It is difficult to judge the prospects for household refrigerators and washers (where output also has been meager in the past), because the final goals are not known, but output is rising rapidly. The same is more or less true for vacuum cleaners, cameras, watches, and clocks -- there may be some shortfalls, but substantial gains have been made.

Output of textiles and leather products probably will meet the plan, with the exception of such things as linen and of certain kinds of knitwear. In general, some raw materials are in short supply throughout the textile industry, although raw cotton may be plentiful. The silk industry has already exceeded the Five Year Plan, probably because of increased production of synthetic fibers. The growth of the production of leather footwear is very definitely affected by leather shortages, but rubber footwear does not seem to lack raw materials. In 1954 there apparently was a considerable improvement in the quality and style of textiles, but the range of choice still leaves much to be desired.

The producer cooperatives, which are small enterprises employing a few artisans and operating largely with scrap and local raw materials, have already reached the 1955 goals for total production.

Lagging agricultural production shows up quite clearly in the plan fulfillment reports for processed foodstuffs. Goals for meat and dairy products, vegetable oil, and canned foods all will be substantially underfulfilled at the end of the plan. Sugar and sugar products are probably the only major categories in which success is likely. The failures in meat and dairy products are not, of course, very surprising, inasmuch as Western observers have generally considered the plans to be unrealistically high. Soviet concern with the problem was evidenced at the beginning of 1955, when Khrushchev outlined a vast animal husbandry program for the next 5 years (1956-60).

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Like all Soviet plans, it is quite ambitious, and it is heavily dependent upon the success of the "new lands" program. Together with increased procurement prices, Khrushchev's livestock plan is, however, more likely to result in a substantial increase in production of meat and dairy products than any other program of the postwar period, particularly the abortive Three Year Livestock Plan (1949-51).

2. Distribution.

It is evident from the announcements of retail trade turnover that, in general, 1954 was the best year the Soviet consumer has had since the late 1920's. Significant increases were reported in sales of many consumer goods, although there were official admissions that the demand for a number of important consumer commodities was not fully met. As in 1953, substantial releases of foodstuffs from state reserves occurred in 1954 in order to supplement the slow growth of agricultural production. The shoddiness of many items, especially clothing and footwear, continued to plague the Soviet consumer. Retail prices for food and industrial commodities remain 14 and 27 percent, respectively, above 1940, but this has been more than compensated for by increased aggregate wage payments and other forms of monetary income which have given the consumer surplus purchasing power despite the above-plan output and sale of consumer goods.

In 1954, state and cooperative retail trade turnover increased 18 percent (in comparable prices) over 1953. This increase was sufficient not only to overfulfill the annual plan (an increase of 15.5 percent over 1953) 9/ but also to overfulfill the original Fifth Five Year Plan goal (a 70-percent increase over 1950) in 4 years. The success of the "new course," inaugurated in the latter half of 1953 and designed to provide more and better consumer goods to the populace, is impressive. Although an increase of 21 percent was reported in the first half of 1954 over the first half of 1953, the base of comparison was relatively low. In the second half of 1953, however, retail trade turnover was swelled by a sizable increase in consumer goods production* and by imports, mainly of food products, from Western countries. Thus in the second half of 1954 the increase

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^{*} Output of consumer goods in the second half of 1953 increased by 30 billion rubles over the first half of 1953.

over the second half of 1953, although somewhat smaller than for the first half, reflected a greater absolute increase because of the expanded base of comparison.

The revised 1955 goal of a 100-percent increase over 1950 in retail trade turnover 10/ probably will be attained easily, since an increase of only 11 percent is necessary in 1955 to fulfill this plan. As indicated in Table 4, the sale of most individual food and manufactured commodities appears to be progressing as scheduled during the Fifth Five Year Plan. In 1954 the greatest

Table 4

Indexes of State and Cooperative Retail Trade Turnover for Selected Commodities a/ in the USSR

1951-55 b/

Commodity	1951	Indexes 1952	1953	= 100) 1954	1955 Goal	Increase Required in 1955 (Percent)
Meat Fish Butter Vegetable oils and other fats Sugar Clothing Furniture Bicycles Sewing machines Watches and clocks	132 114 110 114 129 114 150 186 129 115	145 129 129 133 162 126 180 231 157	198 139 175 159 200 163 250 268 211	229 164 187 194 220 199 313 329 264 236	230 210 190 260 230 240 400 550 510 260	1 28 2 35 5 21 28 67 94 11
Total trade	115	126	153	180	200	11

a. These commodities were selected because they are the only ones reported during the past 4 years for which the plans are known.

b. Compounded on the basis of reported annual percentage increases.

percentage increases were reported for consumer durable items -washing machines, 900 percent; vacuum cleaners, 170 percent; refrigerators, 80 percent; television sets, over 300 percent; and radio sets,
76 percent. These commodities, however, are high-priced luxury items
which were not sold in large quantities before 1954; consequently,
large percentage increases in sales do not reflect very large absolute
increases.

Ostensibly, the 18-percent increase in retail trade turnover reported for 1954 is a significant achievement and one which reflects the desires of the Soviet government to provide the people with more consumer goods. This increase, however, is the result not only of increased supplies but also of several other factors -- (a) the upgrading and repricing of goods, (b) greater weight of more expensive commodities, (c) emphasis on higher quality production, and (d) funneling of a higher percentage of total trade through state trade channels than in the past |- which would not reflect absolute commodity increases. Cumulatively, those factors which result in the marketing of a proportionately greater percentage of more expensive goods probably are responsible for a significant portion of the reported increase in 1954. As shown in Table 5,* those factors were probably especially significant in the first half of 1954, when production of many commodities was noticeably below sales. Deficits in many commodities, foodstuffs in particular, were made up through imports and releases from state reserves. 11/

Since mid-1953 the USSR has attempted to channel more trade through the state trading network. Commission sales were begun in an effort to induce farmers to sell more of their surplus produce to cooperatives rather than through the collective farm market at higher prices than obtained for contract and obligatory deliveries. This move was intended to neutralize the collective farm market by narrowing the spread between the prices received by the farmer from the state trading system and in the "free" market. This plan has not been successful, and trade organizations have been severely criticized because of it. Further inducement was offered to farmers to market their produce through state trade channels by a decree raising the prices of potatoes, fruits, and vegetables in the off-season. This decree was intended not only to obtain more equal distribution but also to stabilize prices on the collective farm market during the interim harvest period.

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^{*} Table 5 follows on p. 19.

Table 5

Indexes of Production and Sales of Consumer Goods in the USSR 1954

			1953	3 = 100	
	Midyear	1954	End of Year 1954		
Commodity	Production	Sales	Production	<u>Sales</u>	
Meat and meat products	102	130	109	116	
Fish	113	124	114	118	
Dairy products	110	121	113	110	
Vegetable oils	117	113	111	110	
Confections	105	114	103	111	
Tea	114	119	111	120	
Cotton fabrics	103	119	106	118	
Silk fabrics	157	145	129	128	
Woolen fabrics	119	156	117	125	
Hosiery	110	131	107	124	
Leather footwear	110	115	107	116	
Radio receivers	207	200	176	176	
Television receivers	288	200	300	200+	
Phonographs	132	133	131	126	
Refrigerators	316	300	192	180	
Vacuum cleaners	449	400	290	270	
Sewing machines	125	131	129	125	
Watches and clocks	129	136	128	124	
Cameras	142	153	154	157	
Furniture	128	137	127	125	
Bicycles	130	129	125	123	
Motorcycles	166	165	144	136	
Automobiles	127	170	123	138	

Omission of references to sales on the collective farm market in the 1954 report is unprecedented in the Fifth Five Year Plan period. This may be indicative that (a) sales have stagnated because of the effects of the measures taken to funnel more trade through state channels and because of the drought in major producing areas, which has decreased food supplies, or that (b) prices have risen considerably, perhaps as a result of the drought.

In general, production increases have been largest in those items purchased by the upper economic strata of Soviet society -- the managers, engineers, Party and state bureaucrats, and possibly the Stakhanovites. Greater availabilities of textiles, clothing, footwear, and furniture benefit the bulk of the people in greater or less degree, but the most important things for the average Soviet citizen are food of better quality and more and better housing. It is in precisely these areas that production lags most, and the obstacles to future growth are most serious.

D. Cost Reductions and Technological Progress.

There are several measures of efficiency which are quite important in assessing Soviet plan fulfillment. All Soviet production schedules are based upon anticipated cost reductions and increased productivity of capital as well as on the planned allocations from current account. The 90-percent increase in the volume of investment, for example, was to be achieved by a 30 percent reduction in construction costs (1951-55 compared with 1946-50) and a 60-percent increase in allocations from current account. Probably the most important efficiency measure is the reduction in sebestoimost! (total cost*) of industrial production, which includes the value of raw materials and semifinished goods, fuel and power, wages, an amortization allowance, ** and certain administrative expenditures. This cost reduction is made up of the difference between the actual total cost of production (sebestoimost') in year II and the total cost of production in year II calculated on the basis of cost per unit in year I. Such reductions in the cost of industrial production increase the economic surplus available for investment and provide the basis for price reductions in producer goods.*** Together with reductions in



industries.

^{*} Sebestoimest', the accounting category which is the basis for most Soviet pricing and cost accounting, cannot be properly translated. The closest approximation is our concept of total cost with the qualification that under the Soviet system there are no fixed costs which are accounted for if the plant is not operating.

** The Soviet amortization allowance includes repair and replacement of capital equipment but does not contain an obsolescence factor.

*** Price reductions in consumer goods are derived primarily from the reduction of the turnover tax, although reduction of the sebestoimost' of processing may have been a factor. In general, the rate of profit decreed by the state is higher in consumer goods than in heavy

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construction costs, price reductions for producer goods, raw materials, and semifinished goods make possible a greater increase in real volume of investment than is indicated by the allocations from current account. The yearly decline in the aggregate sebestoimost' of industrial production is shown in Table 6.

Table 6

Reduction in Total Cost of Industrial Production in the USSR 1951-55

		····				Percent
Percent	age Redi	uction :	from Pre	eceding Year	Cumulative Four Year	Five Year
1951	1952	1953	1954	1955	(1952-55) Reduction	Plan (1951 - 55)
N.A. a/	8.0	5.0	4.0	(4.5) (Plan)	20.0	25.0

a. The total reduction in 1951 was not reported in percentage terms. The Soviet press, however, did report that savings from cost reductions, excluding the savings from the reduction in wholesale prices of raw materials and semifinished goods, amounted to 26 billion rubles. Apparently most of the savings from 1951 price reductions were passed on to provide the unusually large reduction in 1952.

As indicated above, planned cost reductions for the 1951-55 period were to amount to 25 percent (aggregate production in actual costs compared with aggregate production in 1950 costs). If 1951 is excluded from consideration and if it is assumed that the 1955 yearly plan will be met, the cumulative cost reductions for the 1952-55 period alone will amount to about 20 percent. On the other hand, the savings in 1951 probably were large enough to insure that the economies planned for the 1951-55 period will be achieved but probably will not be exceeded.* The wage component certainly will be larger than planned. Soviet writers have shown considerable concern over the fact that most cost reductions are occurring in the engineering industries, where

^{*} Comparison with reductions in <u>sebestoimost'</u> achieved in the Fourth Five Year Plan is not possible, because of inclusion of subsidies until 1949.



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economies are realized over the life of the machine, instead of in the extractive industries, where the economies usually are realized in the current, or immediately subsequent, time period.*

Several measures of utilization of capital equipment are considered sufficiently important to be reported in the annual plan fulfillment announcements. Production plans for the capital equipment inputs necessary to achieve output goals are anticipated economies in the use of materials and of the existing inventory of capital equipment in each time period. Among the most important efficiency measures are the production per cubic meter of blast furnace volume and coal inputs per kilowatt-hour of electricity. Efficiency trends for the Fifth Five Year Plan are indicated in Table 7.

Table 7

Trends in the Improvement of Production Efficiency in Certain Key Industries in the USSR 1951-54

		•					Percent
	Incre	ase in	Yield	per	Uni	t of Input	
	<u>1951</u>	<u>1952</u>	<u>1953</u>	<u>19</u>	54	Cumulative Target (1951-55)	Increase Required in 1955
Production of pig iron per cubic meter of blast furnace volume Production of crude steel	5	5	2	14		30 f	10
per square meter of open- hearth furnace area	5	3	5	3		N.A.	N.A.
Productivity of coal combines	19	N.A.	N.A.	N.	Α.	N.A.	N.A.
Speed of drilling in proven fields		4	5	5		N.A.	N.A.
Output of electric power per unit of coal input	N.A.	2.4	1.9	2.	6	N.A.	N.A.

^{*} This assumes that the decline in sebestoimost is passed on in the form of price reductions.

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With the exception of construction costs and the utilization of capital equipment in the coal industry, most of the efficiency indexes indicate reasonably satisfactory progress. There is, however, no indication of economies in excess of those previously planned. The failure after 1951 to report improvement in the utilization of coal combines probably indicates that in fact no improvement occurred. In general, the coal industry seems to be operating in a rather unsatisfactory manner, although gross output goals are being met.

IV. Agriculture.

A. General Trends.

It was perhaps indicative of the continued poor production performance of agriculture in 1954 that, in the discussion of the plan results, less than one-sixth of the space was used to describe actual production results. An over-all increase in 1954 of 3 percent in the production of 10 important agricultural commodities indicates a continuation of the very slow secular growth characteristic of the Fifth Five Year Plan period. The production index for 1954 is only 2 percent above the average for the first 4 years of the plan period. Fiber output (represented by cotton, hemp, and wool) continued the increase of the postwar period and has shown a remarkable increase over prewar levels. On the other hand, the general agricultural index has remained relatively static as a result of the poor production performance for the more important food products, output of which has failed to reach prewar levels. The failure of this index (weighted by grains, potatoes, vegetables, meat, and milk) to rise probably provides the basis for most of the official concern about the lag in output.

B. Grains and Fibers.

The production of the most important food commodity, grain, increased 5 percent, but as the plan announcement states, the increase resulted from a 5-percent increase in acreage, the largest annual increase in acreage during the current Five Year Plan. Ironically enough, an excellent crop on the grain acreage of the "new lands" area of Northern Kazakhstan, Western Siberia, and the Urals offset a bad drought in the Ukraine, the traditional breadbasket of Russia. This change in the regional production pattern of grain probably resulted in government procurement of a larger proportion of the grain harvest than in recent years, thus allowing

the state more flexibility (1) to increase state reserves; (2) to divert grain to local shortage areas or to areas that are scheduled to convert acreage from grains to other crops; or, (3) which is less likely, to increase exports.

Slight to moderate increases in the production of other crops, such as potatoes and vegetables, were also the result of acreage expansion rather than increased yields.

The production of the raw materials of two quality foods, sugar and vegetable oils, may have been slightly lower as a result of drought in important growing areas.

The greatest success in crop output was in the production of fibers. The USSR improved its fiber position by a 9-percent increase in the production of raw cotton and by a 14-percent increase in the production of flax, reversing a trend of the past 3 years of a sharp decrease in the production of flax.

The announcement of an overfulfillment of the plowing plan on the "new lands" assures a large increase in grain acreage for 1955. Although the degree of success will depend mostly on the weather, there also will be a great strain on organization and on the equipment resources available for this region. Much disruption was noted last year, when the acreage sown was only one-fifth that planned in the 1955 program.

By 1956 the planned expanded acreage of 28 million to 30 million hectares, equal to the total sown acreage of Canada, will have absorbed large investments and, which is more important, apparently will be an integrated portion of the Soviet agricultural program upon which a balanced production program will rest. Bringing such a marginal region into production seems to be a gamble that, should it fail, might cause political and economic repercussions that would prove a serious limitation to Soviet capabilities.

C. Livestock.

In the livestock economy there were no significant changes in the trend either of numbers or of productivity per animal. An increment of 7 percent in hog numbers reversed a downward trend in the rate of increase of the previous 3 years, but increases in cattle and sheep numbers continued at a low rate (2 to 3 percent). Despite

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measures to encourage rapid increases in privately held livestock, the gains in this sector were small and uneven during the first full year of the "new course." The rates of increase in the first half of the year for the privately held herds were greater than for the year as a whole, indicating that above-normal slaughtering may have occurred in the third quarter because of lack of fodder in the drought areas.

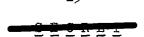
An indicator that the peasant has not changed his attitude toward the socialized holdings of livestock is implied in the sheep statistics for collective farms. The plan announcement gives the reason for a 2-percent drop in sheep on collective farms as "unsatisfactory maintenance of sheep on pasture during the 1953-54 winter." Although losses may have been inevitable because of the severe winter, the long record of peasant indifference to communal herds becomes especially evident when adverse natural conditions create greater demands for personal care. This antipathetic attitude on the part of the peasant is usually expressed in official press jargon as lack of "maintenance" or "poor organization and management" of socialized herds.

It appears that the already low output of meat, milk, wool, and other products per animal not only did not increase during 1954 but even may have fallen in the important meat and milk category. The continuation of low animal productivity certainly was aggravated by low feed-grain and fodder supplies during the 1953-54 wintering season, the severe winter of early 1954, and poor pasture conditions in many areas during the summer and fall of 1954. The effects of the drought that reduced pasturage will continue to be felt throughout this winter and spring as a result of low feed-grain and fodder supplies. It is not suggested, however, by these comments pertaining to the peasant's attitude that the new incentive program has failed. The year that has passed since the initiation of the "new course" is not enough time to show the impact of the incentive measures on peasant attitude or labor productivity.

V. Labor.

A. Labor Force and Labor Productivity.

The growth of the industrial labor force and of industrial labor productivity indicates a rather marked contrast in trends, although it is such as might reasonably have been expected. The increase over 1953 was almost the same in both cases -- 6 percent



for the labor force and 7 percent for labor productivity -- but whereas the planned growth of the labor force for the 1951-55 period was achieved by the end of 1953, the index of labor productivity in 1954 (1950 = 100) was only 133. If the labor productivity plan for this year is met, the index will stand at approximately 142, as compared with the target of 150 set out in the Fifth Five Year Plan directives. Year-by-year increases in labor force and labor productivity are indicated in Table δ .

Table 8

Growth of Industrial Labor Force and of Industrial Labor Productivity in the USSR 1951-54

					·····	Percent
	Increa	se over	Previo	us Year	Planned Increase	Increase
	1951	1952	1953	1954	1955 over 1950	Required in 1955
Industrial labor force a/	5	4	6	6	13 <u>b</u> /	<u>c</u> /
Industrial labor productivity	10	7	6	7	50	13

a. Derived from incustrial output and industrial productivity figures which indicated that the Fifth Five Year Plan goal was achieved by the end of 1953. b. Based on original plan of a 70-percent increase; see Table 1, p. 6, above. Since the output goals have been revised upward, the labor force goals would also be increased somewhat.

c. Overfulfilled.

The goals for the growth of the labor force also were reached in the middle of the Fourth Five Year Plan, but the government managed to exceed the plan for labor productivity with the aid of inflated measures of industrial production and with the use of prisoner-of-war labor. To exceed the planned growth of the labor force, moreover, means that the wage bill has been exceeded, placing additional pressure on the supply of consumer goods. The Fifth Five Year Plan directives for labor productivity in effect have been abandoned. Because it is believed that lagging labor productivity was one of the most important

considerations in the adoption of the "new course," any cutback in the production of consumer goods should tend to keep the rate of growth at the present low level. Continued growth of the industrial labor force also will require more consumer goods in order to maintain incentives.

B. Industry.

The fulfillment of production and investment goals in the current Five Year Plan has required above-plan increases in the labor force to compensate for failure to meet labor productivity targets. Soviet labor force figures for 1952-54 are shown in Table 9,* which indicates that the 1955 goal of 45 million workers and employees in the national economy already has been surpassed. A part of this increase was the result of a bookkeeping transfer of collective farmers to the category of state agricultural workers, but the 5-year target was exceeded in 1954 even after deduction of this group. The Fifth Five Year Plan goals for the industrial labor force already had been exceeded in 1953.**

The Fifth Five Year Plan called for 13-percent increases in both the industrial labor force and the total labor force. Since this rate of increase is less than the rate of increase in workingage population during the same period, a declining rate of labor participation by young and old persons and by women evidently was intended. Expanded educational programs indicate declining participation by young persons. The overfulfillment of labor force goals in 1953 and the first half of 1954, therefore, must have been achieved by heavier employment than foreseen of women and older persons. These unplanned "increases" are enabling the USSR to meet industrial output targets, despite failure to increase output per worker according to plan.

As has been noted, the over-all plans for labor productivity will not be reached either in industry or in construction. Moreover, 1954 continued a general trend of the Fifth Five Year Plan in that the worst failures in industrial labor productivity were in the extractive industries, particularly the coal and timber industries. In the latter, labor productivity was actually less than in 1940.

^{*} Table 9 follows on p. 28.

^{**} Soviet annual plan fulfillment reports regularly give absolute figures for the numbers of workers and employees in the national economy but not for those in industry alone. Changes in the industrial employment are computed from data on changes in total industrial output and industrial labor productivity.

Table 9

Civilian Labor Force in the USSR 1952-54

							<u>Millions</u>
	1952		195	53	195	54	1955
	January	July	January	July	January	July	January
Collective farm workers a/ Workers and employees b/	48.1 40.8	49.0 41.5	49.5 41.7	49.5 42.4	48.6 44.8	48.4 46.6	48.7 47.0
Nonagricultural c/ State agricultural a/	37.9 2.9	38.6 2.9	38.7 3.0	39·4 3·0	40. 3 4 . 5	41.3 5.3	41.6 5.4
Total labor force	<u>88.9</u>	<u>90.5</u>	91.2	91.9	93.4	95.0	<u>95.7</u>

a. The 1954 figures are estimated from a recent report 12/ and from plan fulfillment data. For these data, see introductory remarks in Appendix B.

b. The July figures are obtained from sources listed in introductory remarks in Appendix B. For the seasonal adjustments required, see source 13/.

c. Obtained by subtracting the number of state agricultural workers from the number of workers and employees.

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despite greatly increased mechanization of cutting and hauling, which probably is why the timber industry as a whole is operating at a loss. 14/ The planned increase in labor productivity in the coal industry for the 1951-55 period was 40 percent, but by the end of 1953 the increases totalled only 17.2 percent. 15/ The engineering industries generally have shown much more favorable results.

From the point of view of the Soviet leaders, labor productivity is one of the most important measures of economic progress and growth. They consider increments to labor productivity to be the most important source of accumulation for future growth. Lagging labor productivity is, therefore, one of the most serious economic problems, if not the most serious, facing the Soviet leadership at the end of 1954. To a Western observer it appears that the solution to the problem lies in greater material incentives to replace in part the medals and slogans of the past, and this solution means primarily more and better food and more and better housing. Paradoxically, agriculture and housing construction are the areas in which it is most difficult to transform resource allocations into the end products desired.

C. Agriculture.

The most important changes in the agricultural labor force were the following: (1) a shift of over 2 million Machine Tractor Station (MTS) workers from a temporary to a permanent basis, (2) a quantitative and qualitative rise in the managerial and technical personnel in agriculture that reversed the trend of recent years, and (3) the beginning of a regional shift of agricultural employees to the "new lands."

An important result of the change to a permanent status of peasants working for the MTS's will be a more clear-cut stratification of the rural labor force and rural social patterns. Heretofore, several million collective farmers temporarily worked for the MTS's as tractor drivers and other machine operators and assistants during the crop season, returning to the kolkhozes even during the crop season, when their services are needed in the MTS's. In order to instill "discipline" during the crop season and to provide the MTS's with an off-season labor force, the government changed the status of this fluid labor force to one of permanency. This action may have a negative effect on the mass of collective farmers, as they see a large corps above them on the agricultural labor ladder enjoying what undoubtedly will be a higher standard of living.

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It is too early to detect the results of a movement of more than 100,000 agronomists, zoologists, engineers, and other specialists to the farms and tractor stations. This rise in the quality of the upper managerial and technical strata may strengthen one of the weakest links in the organization of agriculture.

VI. Capital Investment.

A. General Trends.

The volume of capital investment increased 15 percent in 1954, and this increase probably was sufficient to meet the planned 90-percent increase in volume for the 1951-55 period, as compared with the 1946-50 period. In 1953 the volume of investment increased only 4 percent, probably as a result of (1) a general reassessment of the construction program, when a number of the large Stalinist construction projects were suspended or abandoned, and (2) shifts in the pattern of resource distribution in accordance with the upward revision of consumer goods production schedules. The recently announced 1955 state budget provides for an outright decrease in planned capital investment, although the planned 1955 outlays may in fact exceed actual 1954 outlays for investment. The trends in gross investment; for the Fifth Five Year Plan are presented in Table 10.

Table 10

Official Soviet Index of Volume of Gross Investment a/ 1951-54

			Percent		
		Increase over Pr	evious Year		
1951	1952	1953	1954		
12	11	Ъ.	15		

a. The volume of investment is measured in real terms: that is, it is expressed in prices of a base year, 1945 in this instance.

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The increment required in 1955 is relatively small (about 7 or 8 percent), but the current cost of the program for the period will be higher than anticipated because of failure to reduce construction costs as much as planned. Information presently available indicates that the planned increase in volume of capital investment in 1955, like the goal for industrial production, is relatively modest -- barely sufficient to reach the Five Year Plan goal.* The cost of the investment program in the Fourth Five Year Plan was also greater than planned, but the volume goal for the period was exceeded by 22 percent.

Aside from the 15-percent increase in the volume of gross investment, very little information on the distribution of investment was released in the annual plan fulfillment report. Table 11** contains the available estimates of actual investment in the various areas of activity. The 1954 plans were very ambitious in all areas of activity, in heavy industry as well as in light industry and agriculture, and the actual achievements are impressive, even if short of the original goals. On the basis of the information available, the distribution of investment in 1955 will not be substantially different from 1954. Although the share of heavy industry in the total will increase somewhat, after declining in 1954, investment allocations to light industry in 1955 will be approximately 70 percent above the 1953 level.

B. Industry.

The distribution of investment among various branches of heavy industry is difficult to determine because the annual plan fulfillment report did not repeat the detailed breakdown provided in the midyear. If the data for the first 6 months are assumed to apply to the entire year, several interesting trends appear. Investment in the coal industry, which leveled off and may even have declined in 1951-53, increased substantially and probably is the basis for the above-plan increment to production scheduled in 1955. Investment in the iron and steel industry, which had risen rapidly in previous years, increased only slightly, probably less than would have been required if all commodity production goals in this sector were to be achieved.***

The engineering industries probably showed a sizable increase in investment for the expanded plant and additional equipment required to implement the agricultural and consumer goods programs. Investment in the

^{1.} Changes in iron and steel production were computed from production estimates. (The production estimates through 1953 are based



^{*} See Appendix A.

^{**} Table 11 follows on p. 32.

^{***} The capital requirements estimates were derived as follows:

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Table 11

Planned and Actual Distribution of Investment Expenditures in the USSR 1953-54

	Expenditures (Billion Rubles) 1953 1954			Increase in Expenditures (Percent) 1954 over 1953	
	1953 Actual	Planned	Actual		Actual
Heavy industry Light and food industry Agriculture Trade and cooperatives Transport and communications Housing	80 7.5 12 2	90 14 21 4	88 11.5 18 3	12.5 84 75 100	10 51 50 50
	17.7 19.4	18.6 25.5	1.8 23	5 31	2 18

a. Estimated.

electric power industry increased by about 18 percent, despite the probable downward revision of the 1955 goal for installed generating capacity from 100 percent over 1950 to 75 percent.

C. Housing.

As expected, the planned 31-percent increase in investment expenditure for state urban housing was not achieved. It is estimated that

on official Soviet Ennouncements. The 1954 production estimate was derived by interpolation between the 1953 estimate and the forecast for 1955 production, which is slightly below the Fifth Five Year Plan goal.)

- 2. The estimate of increases in iron and steel production due to increased productivity was subsequently confirmed in the half-year plan fulfillment report. They were then deducted from the total increases in production. The remainder was taken to be production for which new capital was required.
- 3. The estimates of output from new capital were multiplied by capital-output ratios derived from US data. The resulting figures are estimates of requirements for new capital in the Soviet ferrous metallurgy industry, expressed in 1952 US dollars.
- 4. Estimated replacement capital requirements were added to the requirements for new capital to obtain total capital requirements.



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approximately 23 billion rubles actually were spent, as compared with the 25.5 billion rubles planned for 1954 and as against actual outlays of 19.4 billion in 1953. The amount of living space built was expected to increase from 28 million square meters in 1953 to 37.8 million square meters in 1954, but this goal probably was not met. Many industrial ministries, the communal bank (which is responsible for loans for private building), and local municipalities were criticized frequently for failure to fulfill the housing plan.

D. Construction Costs.

Construction costs were not reduced according to plan in 1954 -- a failure characteristic of all the previous years of the Fifth Five Year Plan. Indeed, official reports indicate that, in the Ministry of Construction, costs actually increased in 1952 and again in 1953. In fact, the 5-year goal for labor productivity in construction, calling for an output per construction worker in 1955 of 55 percent more than in 1950, has been abandoned. Table 12 indicates that in order to recover the lags of 1951-53, labor productivity would have to increase by about 13 percent both in 1954 and in 1955 in order to meet this target. Instead, however, Finance Minister Zverev in his April 1954 budget address announced a planned increase of 8.6 percent for the

Table 12

Annual Increases in the Productivity of Construction Labor in the USSR 1951-55 $\underline{a}/$

				Percent
1951	1952	1953	1954	Increase Required in 1955
10	7	4 .	8	17

a. For sources, see introductory remarks in Appendix B.

year, 16/ indicating that no hopes were entertained of recovering the ground already lost. The actual 1954 increase was even less than the revised goal. As a consequence of the failure to meet planned cost reductions, the cost of the 1951-55 Soviet investment program probably will exceed the 1946-50 plan by at least 80 percent rather than the planned 60 percent. At the end of 1954 there was considerable evidence



that a general reappraisal of construction projects was under way in order to insure the most effective use of available funds.

Planned state expenditures on urban housing for 1955 amount to 24.5 billion rubles, less than the 1954 plan although above the estimated actual outlay for 1954. In view of Khrushchev's emphasis on housing in his construction speech published in December 1954, 17/ it is somewhat surprising that allocations did not increase this year. On the other hand, the experience of 1954 indicated that the construction units were incapable of absorbing larger allocations; the 1955 appropriation probably is much more realistic and more likely to be used fully. Judging from the criticisms leveled by Khrushchev against frilly, nonutilitarian design and small, atomistic, and inefficient construction units Soviet builders may be faced with severe institutional constraints upon the scale of housing construction which may be undertaken.

E. Agricultural Investment.

Although investment in the agricultural sector did not reach the 1954 planned levels, there were large increases both in state-financed investment for MTS's and sovkhozes and in kolkhoz investment from internal funds. A total estimated investment of 39 billion rubles,* which includes increments to socialized herds, amounted to an increase of nearly 40 percent over the previous year. Although this is an impressive increase for 1 year, the absolute amount remains small in view of the large disinvestment in the agricultural sector resulting from collectivization, the destruction of World War II, and the continual "under-investment" common to the 5-year plans.

State investments in the MTS's and state farms are estimated to be 50 percent above the previous year, the greatest increases coming in long-needed MTS construction and in increased allocations of machinery to the MTS's. Most of this increase in machinery allocation reflects large increases in series other than the usual two major machine items, large track-laying tractors and combines. This change in the pattern of machine allocations is in line with the announced plan for a more balanced mechanization of agriculture. The "new lands" program absorbed the major share of new machinery, especially large tractors and combines.

^{*} State investments, amounting to nearly one-half of the total, are made at wholesale prices, whereas those of kolkhozes probably are valued at retail prices. Thus some degree of distortion is involved in aggregating the two types.



Investment by kolkhozes rose sharply as a result of increased money income and added pressure from the state to assign a greater proportion of this income to investment and to accept long-term government credits. Since the kolkhoz organization does not purchase mechanized field machinery, most of the increase in machinery, as is indicated in the plan report, probably was in the form of trucks and machinery for the mechanization of animal husbandry.

VII. Transport.

A. General Trends.

As shown in Table 13, the volume of freight traffic in the USSR has risen consistently during the Fifth Five Year Plan period, and the 1955 goal for rail transport, the chief means of transport, has been overfulfilled. In general, the Soviet transport system has kept pace with the growth of the economy.

Table 13

Growth of		Turno 151-54		n the	USSR
***************************************				1950	= 100
		1951	1952	<u> 1953</u>	1954
Total trans	sport	111	122	131	143

B. Rail Transport.

Overfulfillment of the 1955 goal for rail transport was achieved in 1954, but this is in fact illusory, for the high level of traffic resulted in some considerable degree from failure to decrease the average length of haul, as planned, and only in part from an actual increase in the volume of freight hauled. The physical volume of freight has grown consistently, however, during the Fifth Five Year Plan period, and most rail transport plans are being met. Economic growth does not appear to be hampered seriously by limitations on rail transport, although rail-loading plans for a number of important commodities, including timber, scrap iron, and



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building materials, have not been met for several years. Operating efficiencies and economies have not been effected as planned in rail transport, and curtailment of capital investment in the early years of the Fifth Five Year Plan has resulted in some pressure upon the freight-car pack necessary to transport bulk commodities. Motor transport may be taking some of the load off the railroads in the highly industrialized areas, but not in the long-haul, intercity traffic. The capabilities of the Soviet rail system are being expanded by increased outlays for equipment and new and improved lines. Extensive investment in heavy locomotives, especially diesel and electric equiment, is scheduled in the near future but probably will not be felt to any great extent before the end of 1955. The production of freight cars continues to be an uncertain quantity, although it is certainly behind both the annual and the long-range plans. Substantial additions of new line (largely narrow-gauge) are to be laid to facilitate the "new lands" program.

It is estimated that about 85 percent of all freight is moved by railroads in the USSR. The Fifth Five Year Plan for railroad freight traffic, which called for a mcdest increase of 35 to 40 percent, has been overfulfilled in 4 years. As shown in Table 14, railroad freight traffic at the end of 1954 had increased 42 percent over 1950.

Table 14
Increases in Railroad Freight Turnover a/ in the USSR 1951-55

Year	Annual Increase (Percent)	Index (1950 = 100)
1951 1952 1953 1954 1955 Plan	12.0 9.0 7.0 9.0 <u>b</u> /	112.0 122.0 130.5 142.0 135.0 to 140.0

a. <u>Gruzooborot</u> (freight turnover) is believed to refer to traffic, measured in ton-kilometers. The increase reported for 1953, however, may have reflected tons originated.

b. Calculated from the total reported at the end of 1954.

Ostensibly, preterm fulfillment of the Fifth Five Year Plan goal appears to be a major achievement and most certainly reflects the capabilities of the Soviet railroad system to supply the needs of the country. Increases in ton-kilometers can be achieved, however, by two methods -- by loading more tons of freight per car, holding the average length of haul constant, or by loading the same amount of freight per car and transporting it over greater distances. The tonnage of freight moved has increased in the USSR during the period 1951-54; average daily car loadings (in 2-axle car units) increased about 10 percent during this time. Some increase also took place in average loads per car, but cars now are loaded nearly to capacity, and future significant increases could not be expected from increasing carloads. What the overfulfillment of the Soviet rail transport plan probably indicates is that the USSR planned great reductions in the average length of haul for specific bulk commodities. Such reductions would have moderated demands for increases in motive power and in the freight-car park. Failure to achieve planned reductions in the average length of haul has resulted in premature fulfillment of planned traffic increases and in additional pressure upon transport equipment.

The increase in rail traffic in the Fifth Five Year Plan period was to be made possible not only by an increase in capital investment but also by increasing operating efficiency and economies -an increase in the freight-carrying capacity of trains, a reduction in freight-car turnaround time, and a decrease in the average length of haul. Although rail traffic increased approximately 9 percent in 1954, loading plans were underfulfilled for a number of important commodities, including timber, scrap iron, building materials, chemical and mineral fertilizers, and certain industrial consumer goods. These deficiencies are believed to be attributable to a shortage of freight cars, especially cars suitable for carrying bulk commodities. This shortage is believed to stem from cutbacks in output of freight cars several years ago, which reduced new car deliveries in 1952 and 1953. The freight-car production plan was not fulfilled in 1954, but it is believed that the 1954 plan reference is to a revised plan with higher goals, adopted during 1953.

At present, over half of the freight-car pool in the USSR is composed of large 4-axle cars. It is believed that a large reserve of laid-up cars exists in the USSR, but these are mainly old 2-axle boxcars which are ill-suited for transporting bulk commodities. Pressing old 2-axle cars into service would help alleviate the shortage, but the average load per car would be reduced because of

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the small size of the cars. Furthermore, maintenance costs, already high, and stoppages due to breakdowns would increase with the use of the old 2-axle cars.

The apparent shortage of freight cars is aggravated by the fact that the desired economies and increased efficiencies in freight-car operation have not been effected. In 1954, plans for reducing freight-car turnaround time and for increasing economic speed of trains were not fulfilled. The average length of haul for basic commodities -- ores, fuels, grains, and timber -- has not decreased significantly, as planned, but instead has increased slightly. Increased movement of quantities of consumer goods in 1954 further complicated the rail transport picture because these goods require more careful handling and weigh less per carload than do raw materials.

Soviet leaders seem well aware of the inadequacies of the rail transport system and are taking measures to insure that the railroads will not become a bottleneck in the growth of the Soviet economy. Extensive investment in heavy diesel locomotives and 4-axle freight cars is scheduled for the near future, together with improvement in traffic-control equipment. Electrification of many lines is planned. Delivery of needed equipment in quantity, however, will not take place before the end of 1955, and until then heavy bulk commodities may not move in the desired amounts. Nevertheless, a rate of growth of at least 5 percent in railroad freight traffic may be expected in 1955.

C. River and Sea Transport.

River and sea transport contribute about 6 and 5 percent, respectively of the total ton-kilometers of traffic annually carried in the USSR. Despite almost a 2-week delay in the 1954 opening of several principal river arteries, including the Volga, as well as some sea lanes, freight turnover plans for both river and sea transport were overfulfilled. River shipment plans, however, for several important commodities -- metals, grains, cement, and fruits and vegetables -- were not fulfilled. As indicated in Table 15,* the 1955 goal for sea freight traffic was virtually fulfilled in 1954, but it is doubtful that the planned goal for river freight movement will be reached by the end of 1955.

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^{*} Table 15 follows on p. 39.

Table 15

Increases in Ton-Kilometers of River and Sea Freight Traffic in the USSR 1951-55

						Percent
	Incre	ase over	Previou	s Year	Planned Increase	Increase Required
	1951	1952	1953	1954	1955 over 1950	in 1955
River transport	13	12	<u>a</u> /	6	75-80	
Sea transport	8	9	10	18	55-60	1-4

a. Not reported.

D. Motor Transport.

Less than 5 percent of all Soviet freight is carried by motor transport, but this type of transport is extremely important in its own right. Motor transport is confined primarily to use in highly industrialized areas and to the movement of agricultural products to the nearest railhead. Trucks are being used in increasing numbers to replace rail movement for short-haul transit, thereby releasing railroads for long-haul transport. An increase of 80 to 85 percent in motor transport was planned for the Fifth Five Year Plan, but this goal has already been dwarfed by the reported increase in motor carriage in 1954, as shown in Table 16.*

^{*} Table 16 follows on p. 40.

Table 16

Increases in Ton-Kilometers of Motor Freight in the USSR 1951-55

Year	Annual Increase (Percent)	Ind.ex (1950 = 100)
1951 1952 1953 1954 1955 Plan	20 15 13 66	1.20 1.38 1.56 259 180 to 185 <u>a</u> /

a. The index postulated in the Fifth Five Year Plan.

APPENDIX A

NOTES ON CAPITAL INVESTMENT IN THE USSR

In Table 17* a comparison of annual and midyear rates of increase in the volume of capital investment is shown in order to provide a basis for judging the probability that half-year rates will approximate annual rates. In Table 17 the midyear increase is within 3 percentage points of the annual increase in about one-half of the cases and within 5 percentage points of the annual increase in more than three-quarters of the cases.

The Fifth Five Year Plan for capital investment is as follows:

... to increase the total volume of state capital construction during 1951-55 approximately 90 percent, but to increase state allocations for this construction only approximately 60 percent, as compared with the Fourth Five Year Plan, covering the difference of 30 percent through lowering the cost of construction by way of increased labor productivity, lowered overhead expenditures, and lowered prices of building materials and equipment. 18/

Since increases in the volume of investment, as given in the periodic plan fulfillment reports, are measured in constant terms (1945 prices), annual and cumulative investment volumes can be related. The results are presented in Table 18,** which shows that if 1946 investment equals 100, total investment in the years of the Fourth Five Year Plan was 707; that the goal for the Fifth Five Year Plan is therefore 1,344; and that 78 percent of this goal had been accomplished by the end of 1954. The increase required in 1955 to reach the cumulative goal is relatively small but cannot be measured precisely, because of certain statistical problems.

Changes in Soviet investment accounting practices during the postwar years make precise comparisons of investment levels between different years or periods difficult. During the Fourth Five Year Plan

^{*} Table 17 follows on p. 42.

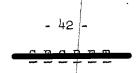
^{**} Table 18 follows on p. 43.

Table 17

Rates of Annual Increase in Capital Investment in the USSR a/ 1947-49 and 1953

		Percent
Year and Sector	Midyear	End of Year
1947		
Total investment Coal Electric power Light and food	6 6 3 25	10 9 4 30
1948		
Total investment Coal Electric power Light and food Metallurgy Machine building Transport Housing	26 24 13 24 28 11 26 42	23 29 20 32 31 15 11 36
1949		
Total investment Electric power Metallurgy Machine building Construction materials Transport Fousing	24 37 21 14 23 32 38	20 39 18 10 12 32 26
1953		
'lotal investment Light and food	4 8	4 8

a. For sources, see introductory remarks in Appendix B.



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Table 18

Increases in the Volume of Capital Investment in the USSR $\underline{a}/1946-55$

Year	Annual Increase (Percent)	Indexes Annual	(1946 = 100) Cumulative
1946 1947 1948 1949 1950	17 10 23 20 23	100 110 135 162 200	100 210 345 507 707
1951 1952 1953 1954 1955 Plan goal	12 11 4 15	224 248 258 297	224 <u>b</u> / 472 730 1,027

a. For sources, see introductory remarks in Appendix B.

period the fulfillment of the investment plan was measured in terms of investments in the state plan of capital investments. "Extra-limit investments," which were outside the investment plan, were not included in computations of plan fulfillment. In 1950 the category of "extra-limit investments" was eliminated, and investments which formerly fell in this category were included in the investment plan and the investment budget. Consequently, during the Fifth Five Year Plan the state plan of capital investment covers a broader category of investments than it did in the Fourth Five Year Plan.

During the Fourth Five Year Plan the volume of state investment was 306 billion rubles in 1945 prices, 19/ which would amount to 366 billion rubles in 1 July 1950 prices. This total excludes "extralimit investments" made during the period. In the first 4 years of the Fifth Five Year Plan, 550 billion rubles (presumably in 1 July 1950

b. Through Five Year Plan period (1951-55).

prices) were invested. This amount includes investments that would have been in the category of "extra-limit investments" prior to 1950. A comparison of 550 billion rubles with the Fourth Five Year Plan figure of 366 billion rubles indicates that only 145 billion rubles of investment are required in 1955 to meet the Fifth Five Year Plan goal of a 90-percent increase over 1946-50. Short of a drastic underfulfillment of the 1955 investment plan, the goal should be met. It should be noted, however, that the figures are not strictly comparable, because the concept of state investment in the Fourth Five Year Plan. If a strict comparison could be made, it probably would show that the USSR will not achieve a 90-percent increase in investment during the Fifth Five Year Plan period, although the degree of underfulfillment would not be large.

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APPENDIX B

SOURCE REFERENCES

This memorandum is based on Soviet plan fulfillment reports, issued quarterly through 1952 and semiannually thereafter, and on CIA analyses of the mid-1954 report.

All data in this memorandum, unless otherwise indicated, are taken from the annual and semiannual Soviet plan fulfillment reports. These reports appeared in the Soviet press on the following dates: 21 January 1947, 18 January 1948, 20 January 1949, 18 January 1950, 27 January 1951, 29 January 1952, 23 January 1953, 17 July 1953, 31 January 1954, 23 July 1954, and 21 January 1955. Translations of these reports, beginning with the annual report for 1948, appear in the following numbers of the Current Digest of the Soviet Press: 1948 annual: Vol. I, No. 4; 1949 annual: Vol. II, No. 4; 1950 annual: Vol. III, No. 3; 1951 annual: Vol. IV, No. 3; 1952 annual: Vol. V, No. 2; 1953 semiannual: Vol. V, No. 27; and 1953 annual: Vol. VI, No. 5.

All Soviet newspapers, books, and journals are considered to be highly reliable sources of economic information. The FBIS publications are primarily translations, and slight errors in broadcast intercept as well as in subsequent translation make them slightly less reliable sources than the originals.

Evaluations, following the classification entry and designated "Eval.," have the following significance:

Source of Information

Doc. - Documentary

- A Completely reliable
- B Usually reliable
- C Fairly reliable
- D Not usually reliable
- E Not reliable
- F Cannot be judged

Information

- 1 Confirmed by other sources
- 2 Probably true
- 3 Possibly true
- 4 Doubtful
- 5 Probably false
- 6 Cannot be judged

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"Documentary" refers to original documents of foreign governments and organizations; copies or translations of such documents by a staff officer; or information extracted from such documents by a staff officer, all of which may carry the field evaluation "Documentary."

Evaluations not otherwise designated are those appearing on the cited document; those designated "RR" are by the author of this memorandum. No "RR" evaluation is given when the author agrees with the evaluation of the cited document.

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